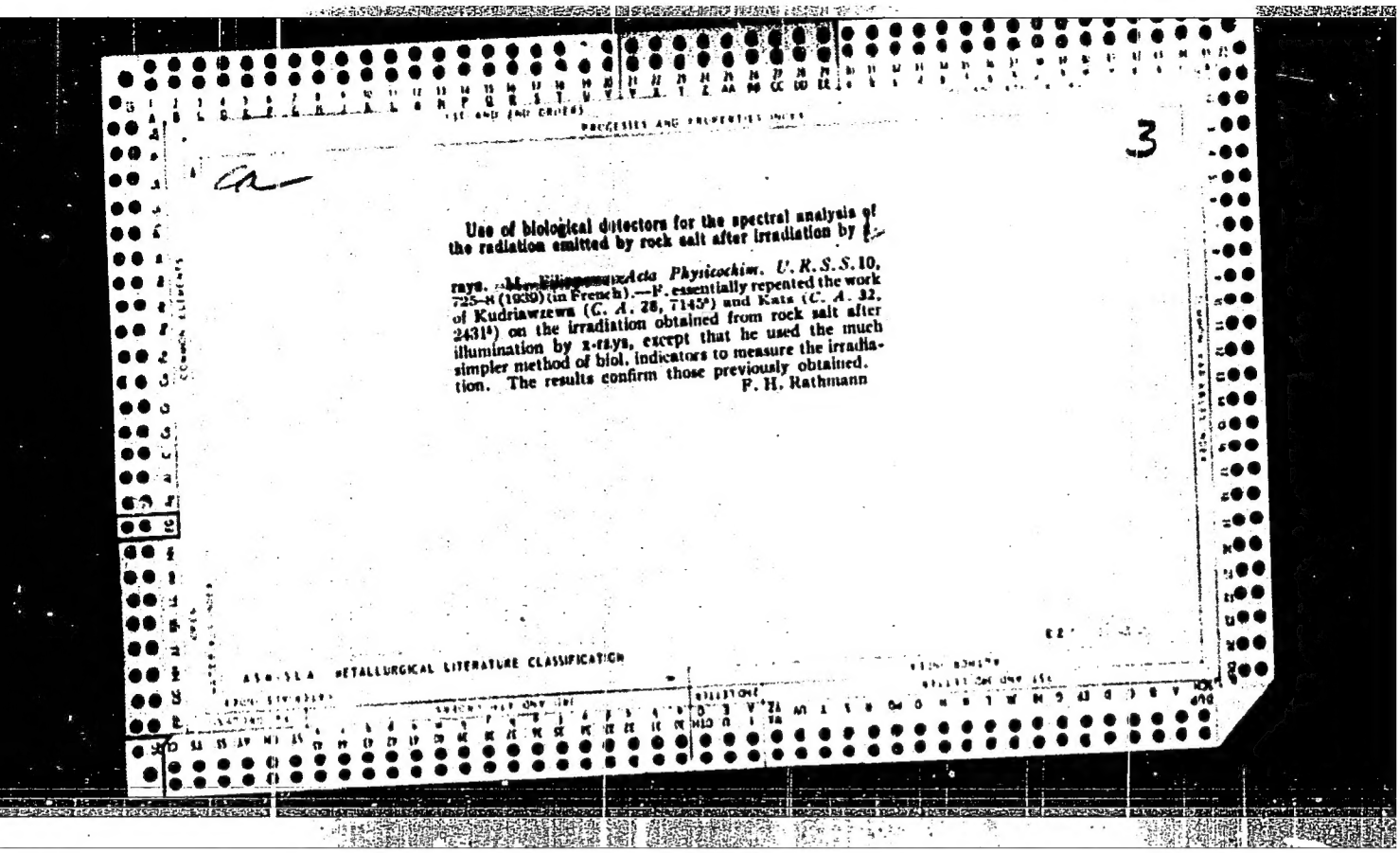


3

Use of biological detectors for the spectral analysis of the radiation emitted by rock salt after irradiation by [illegible] rays. [illegible] *Acta Physicochim. U. R. S. S.* 10, 725–8 (1939) (in French).—F. essentially repented the work of Kudriawzewa (*C. A.* 28, 7145[9]) and Kats (*C. A.* 32, 2431[8]) on the irradiation obtained from rock salt after illumination by x-rays, except that he used the much simpler method of biol. indicators to measure the irradiation. The results confirm those previously obtained.

F. H. Rathmann

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

Filippov, M. I.

FILIPPOV, M. I.

"Use of Biologic Detections for Special Analysis of Radiation Emitted by the Rock Salt after Irradiation by X-Rays." Acta Phys. Vol. 10, No. 5, 1939.

Dept. Medico-Biol. Sci., Acad. Med. Sci. (Institute Exptl. Medicine, Insti. Exptl. Biology.

FILIPPOV, M.I.

Aminazine therapy for active forms of tuberculosis in mental patients; preliminary report. Zhur.nevr.i psikh 60 no.8:1024-1026 '60.
(MIRA 13:9)

1. Novocherkasskaya oblastnaya psikhonevrologicheskaya bol'nitsa (glavnyy vrach A.N.Shapiro).
(CHLORPROMAZINE) (TUBERCULOSIS)
(MENTAL ILLNESS)

FILIPPOV, N. K.

"Automatic Device for Stamping and Assembly of Filter Layers," Stan. i instr., 23, No.5, 1952

28(3)

S/028/60/000/01/015/033
D041/D002

AUTHOR: Zembovskiy, I.F., and Filippov, M.M.

TITLE: Unification of Parts by Using the Group Method of Machining

PERIODICAL: Standartizatsiya, 1960, Nr 1, pp 42-43 (USSR)

ABSTRACT: Some machine building plants, and particularly the Laptevskiy zavod ugol'nogo mashinostroyeniya (Laptevo Coal Mining Machine Plant) have started using the "group method" for machining parts, suggested by S.P. Mitrofanov, Lenin prize laureate. The method consists in splitting machine parts into groups of similar configuration, dimensions, and according to the required production processes. For every group of parts, special machining equipment is produced, and machine tool attachments adjusted. The "group method" considerably reduces the quantity of equipment required, cuts expenses, and increases the work productivity by 25 to 40%.

Card 1/1

25(5) SOV/28-59-2-9/26

AUTHORS: Zembovskiy, I.F. and Filippov, M.M., Engineers

TITLE: Unification of Rubber Sealings (Unifikatsiya uplotneniy iz reziny)

PERIODICAL: Standartizatsiya, 1959, 23 Nr 2, pp 32-33 (USSR)

ABSTRACT: The Laptevo Coal Mining Machine Building Plant uses many different rubber sealings and components with varying rubber bases. The plant's office for standardization and normalization reduced the number of rubber grades from 11 to 4 without affecting the quality of the product. The authors stress the need to standardize manufacture of circular section rubber sealing rings. At present the Tula and Moscow technical rubber equipment plants manufacture the rings from press-forms designed and produced by the plants themselves. Centralized production of these rings by specialized plants will cut down the production costs.

ASSOCIATION: Laptevskiy zavod "Uglemash" (The Laptevo "Uglemash" Plant)

Card 1/1

FILIPPOV, M.M.

In memoriy of Professor Grigorii Grigor'evich Kulikovskii. Vest. oto-rin. 18 no.1:90-92 Ja-F '56. (MLRA 9:6)

1. Po poruchemiyu Pravleniy Vsesoyuznogo i Moskovskogo nauchnykh obshchestv oto-rino-laringologov zasluzhennyy vrach RSFSR.
(OBITUARIES
Kulikovskii, Grigorii Grigor'evich)

YEGOROV, B. G.; FILIPPOV, M. M.; BLAGOVESHCHENSKAYA, N. S.; ZHUKOVICH, A.V.

In memory of Professor Ol'ga Grigor'evna Ageeva-Maikova. Vest. otorin. no.1:122-123 '62. (MIRA 15:7)

(AGEEVA-MAIKOVA, OL'GA GRIGOR'EVNA, 1887-1961)

FILIPPOV, M.M., general-mayor meditsinskoy sluzhby; KOROLEV, M.F., polkovnik meditsinskoy sluzhby

Chronic tonsillitis and current methods of treating it. Voen.-med. zhur. no.4:27-33 Ap '61. (MIRA 15:6)
(TONSILS--DISEASES)

D'YACHKOV, A. I.; RAU, F. F.; TEMKIN, Ya. S.; FILIPPOV, M. M.

Doctor of medical sciences Lev Vladimirovich Neiman; on his 60th birthday. Vest. otorin. no.3:111-112 '62. (MIRA 15:6)

(NEIMAN, LEV VLADIMIROVICH, 1902-)

EYDEL'SHTEYN, S.I., kand. med. nauk; FILIPPOV, M.M., general-mayor meditsinskoy sluzhby

Review of M.IA. Polunov's book "Fundamentals of inhalation therapy." Vest. oto-rin. 25 no.2:107-108 Mr-Ap '63. (MIRA 17:1)

FILIPPOV, M.M., kand.tekhn.nauk

Distribution of servicing installations for diesel locomotives at section railroad yards. Sbor. LIIZHT no.153:172-180 '58.
(MIRA 11:8)

(Diesel locomotives) (Railroads--Yards)

UZDIN, M.M., kand.tekhn.nauk, dotsent; FILIPPOV, M.M., kand.tekhn.nauk

Distribution of installations for servicing diesel locomotives in railroad yards. Sbor. LIIZHT no.153:181-184 '58. (MIRA 11:8)
(Diesel locomotives) (Railroads--Yards)

FILIPPOV, M.M., kand.tekhn.nauk

Indices for evaluating "throat-track" designs in sectional railroads yards. Sbor. LIIZHT no.153:185-195 '58. (MIRA 11:8)
(Railroads---Yards)

FILIPPOV, M.M., dots.

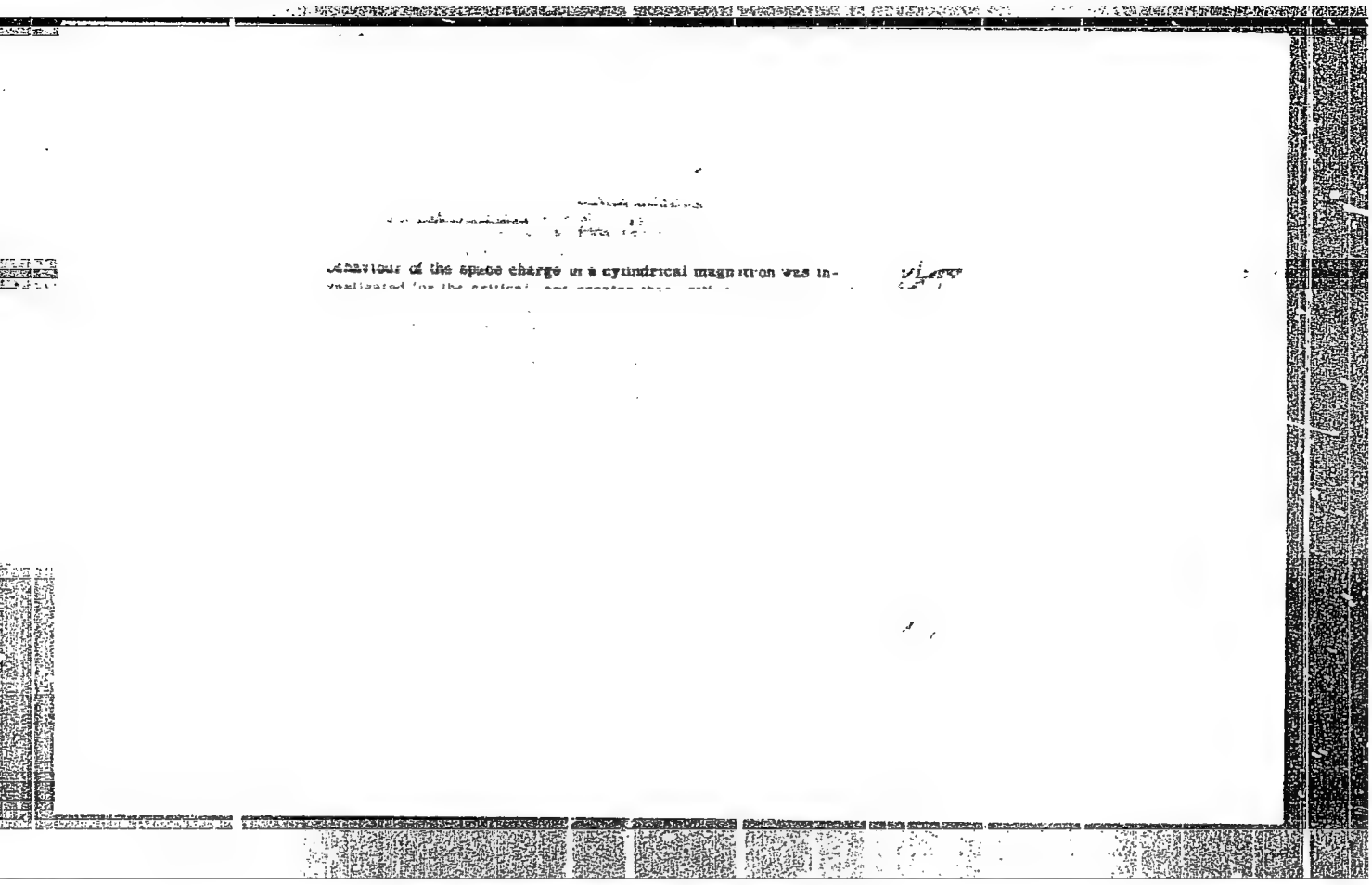
Leningrad Institute of Railroad Transportation Engineers is 150 years old. Vest.TSNII MPS 18 no.8:56-58 D '59. (MIRA 13:9)

1. Leningradskiy institut inzhenerov zheleznodorozhnogo transporta im.akad. V.N.Obraztsova.
(Leningrad--Universities and colleges)
(Railroads--Employees--Education and training)

M. M. FILIPPOV, MOLCHANOV, A. P., E. M. GYUNNINEN, A. V. MEL'NIKOV, AL. P. MOLCHANOV, L. L. MYASNIKOV, V. N. RYSAKOV, F. I. SKRIPOV

"Results of Solar Eclipse Observations of 1952 and 1954 in the 3.2 cm Wavelength"

(Total Eclipse of the Sun, February 25, 1952 and June 30, 1954, Transactions of the Expedition to Observe Solar Eclipses) Moscow, Izd-vo AN SSSR, 1958. 357 p.



behaviour of the space charge in a cylindrical magnetron was in-

Filippov, M.M.

120-3-22/40

AUTHORS: Rakovskiy, I.I. and Filippov, M.M.

TITLE: A Broad-Band Oscillator Using a Lighthouse Triode. (Shirokodiapazonnyy generator na mayachkovom triode)

PERIODICAL: Pribory i Tekhnika Eksperimenta, 1957, Nr 3, pp.80-81 (USSR)

ABSTRACT: A decimeter-band oscillator using a lighthouse triode 6C5A is described. The oscillator can be tuned over the 12-60 cm band with sufficient power output for experimental work. The arrangement is shown in Fig.1. The two-conductor line consists of two lengths of copper wire 3 mm dia and 20-30 cm (or more) long, connected to the anode and grid discs respectively. A capacitor C_1 (tens of pFs) is connected by sliding contacts across the lines and its position can be changed to suit a particular frequency. The remaining part of the line has similar capacitors across it, separated from each other by $\lambda/2$. The metallic base of the tube is completely enclosed in a brass cylinder, 1, the height of which is several mm greater than the height of the base. Between this cylinder and the grid disc is connected a loop, 2, made of thick foil or wire, which makes DC contact between the grid and the cathode. The distributed capacity of this loop and the distributed capacity and

Card 1/2

120-3-22/40

A Broad-Band Oscillator Using a Lighthouse Triode.

inductance of the cylinder form the grid resonant circuit. Connection of the loop also alters the inter-electrode capacity forming the feedback path. Altering the dimensions of the loop alters the frequency of oscillation. The energy is taken off by a coupling element or by an antenna. By selecting the second harmonic waves down to λ = 12 cm can be obtained. There is 1 figure and no references.

ASSOCIATION: Leningrad State University im. A.A.Zhdanov. (Leningradskiy gosudarstvennyy universitet im. A.A.Zhdanova)

SUBMITTED: January 16, 1957.

AVAILABLE: Library of Congress.

Card 2/2 1. Oscillators-Operation 2. Triode-Applications

FILIPPOV, M.M.; BUKIN, A.N.

Oscillograph for the centimeter band. Izv. vys. ucheb. zav.; radiotekh. no.3:373-376 My-Je '58. (MIRA 11:7)

1.Rekomendovana kafedroy radiofiziki Leningradskogo gosudarstvennogo universiteta.
(Oscillograph) (Microwaves)

SOV/120-59-2-42/50

AUTHORS: Bukin, A.N., and Filippov, M.M.

TITLE: High Voltage Rectifier with Output Voltage Control (Vysokovol'tnyy vypryamitel' s reguliruyemym vykhodnym napryazheniyem)

PERIODICAL: Pribory i tekhnika eksperimenta, 1959, Nr 2, pp 139-141 (USSR)

ABSTRACT: The block diagram is shown in Fig 1. The low voltage supply, which should be stabilised, is first converted into a voltage between 12 and 15 kV peak at a frequency of 8 kc/s. This derived supply is rectified in 3 units. In the first two units D.C. supplies of +10 kV and -10 kV are formed. The third unit is a voltage quadrupler with outputs at +20, +30 and +50 kV. There are auxiliary units for feeding the heaters of the high voltage rectifiers in the quadrupler period. Fig 2 is a more detailed circuit diagram, and Table 1 describes the five-winding coil to which the GU-29 valve is connected as a Hartley oscillator. Fig 3 shows how the coil is mounted with respect to the first two rectifiers. The oscillator is tuned by varying the position of a cylindrical ferrite core of F-600 material and its

Card 1/3

High Voltage Rectifier with Output Voltage Control

output voltage can be varied from 2 to 12 kV by changing the grid bias but this results in a dissimilar variation of the ± 10 kV outputs. The quadrupler uses valves type 1Ts11P and would normally supply +40 kV for an input of 11 kV. By connecting the rectifier system in series with the +10 kV supply a maximum of +50 kV can be obtained. The +20 kV supply is filtered via the components R_4C_{12}. Valves Λ_8 and Λ_9 are a pulse power supply for the quadrupler heaters and are coupled by the transformer TI-1 shown in Fig 4. Table 2 gives some typical readings taken at various points in the circuit. The quadrupler together with its heater transformer is mounted separately in a unit measuring 130 x 170 x 110 mm3 completely filled with paraffin. The whole arrangement measures 300 x 300 x 200 mm3 and can supply 1 mA at 50 kV to a UHF oscillograph tube using

SOV/120-59-2-42/50

High Voltage Rectifier with Output Voltage Control

post-acceleration.
There are 4 figures and 2 tables.

ASSOCIATION: Leningradskiy gosudarstvennyy universitet (Leningrad State University)

SUBMITTED: March 29, 1958

Card 3/3

BUKIN, Anatoliy Nikolayevich; FILIPPOV, Mikhail Mikhaylovich; ISAYEV, Andrey Eylyubovich; TSAR'KOVA, Z.I., red.; YELIZAROVA, N.A., tekhn. red.

[Oscillographic recording of super-high frequency oscillations] Ostsillografirovanie kolebanii sverkhvysokikh chastot. Leningrad, Izd-vo Leningradskogo univ., 1963. 211 p. (MIRA 16:4)

(Oscillograph) (Microwave measurements) (Electric measurements)

FILIPPOV, M. N.; PLOSHCHANIKOVA, YE. A.

Jerusalme Artichoke

Cultivating the Jerusalem artichoke. Korm. baza 3 no. 7, 1952.

Monthly List of Russian Accessions, Library of Congress, September 1952. UNCLASSIFIED.

SATAROV,V.A., inzhener; TITOV,V.P.; FILIPPOV,M.N., inzhener

Electric power transmission Kuybyshev-Moscow. Nauka i zhizn' 22 no.8:7-9 Ag'55. (MLRA 8:10)
(Kuybyshev Hydroelectric Power Station) (Electric power distribution)

22(1) SOV/3-59-3-3/48

AUTHOR: Filippov, M.P.

TITLE: A Broad Road to the Vuzes for Production Workers (Proizvodstvennikam - shirokuyu dorogu v vuzy)

PERIODICAL: Vestnik vysshey shkoly, 1959, Nr 3, pp 8-11 (USSR)

ABSTRACT: The author tells of the experience gained by the Leningrad vuzes in training production workers. In 1957, the number of production workers enrolled in the vuzes amounted to 5,569, i.e. 30.2% of the total number; in 1958, it was 7,681 with almost half of the freshmen having a 2-year record of practical work. In 4 vuzes of the city - the Sel'skokhozyaystvennyy, Veterinarnyy, Bibliotechnyy institut (Agricultural, Veterinary, Library Institute) and the Institut sovetskoy torgovli (Institute of Soviet Trade) - 80% of the freshmen were production workers. Many students have interrupted their education for a considerable time, in some cases for 8 to 10 years. The City Committee of the Party advised the Party organizations of vuzes to

Card 1/3

A Broad Road to the Vuzes for Production Workers

especially help these students so that they won't drop out in the first term. Poor students were granted scholarships, and those from other towns were accomodated in hostels. To overcome the educational gaps, many institutes organized additional studies in mathematics, physics, chemistry, etc. for the production workers. At present the level of training of those admitted in the fall of 1958 compares favorably with the production workers who were accepted in 1957. An analysis of last year's results made in 6 institutes - the Polytechnical, Electrical Engineering imeni V.I. Ul'yanov (Lenin), Pedagogical imeni Gertsen, Engineering and Construction, 1st Medical, and Mechanical - leads to the conclusion that the majority of the production workers were able to cope with the training program. In several subjects they proved to have even a better knowledge than those who had come direct from school. The author comments on these results giving numerical data in respect to the individual institutes. The Leningrad

SOV/3-59-3-3/48

A Broad Road to the Vuzes for Production Workers

KPSS City Committee has recommended that a pre-admission training of the students be developed. This year the short-term courses are planned to last 9 months.

ASSOCIATION: Leningradskiy gorodskoy komitet KPSS (Leningrad City Committee of the KPSS)

Card 3/3

FILIPPOV, M.P. (Kiyev)

To the Czechoslovakian medical congress. Vrach. delo no.5:132-133 My '62. (MIRA 15:6)
(CZECHOSLOVAKIA--MEDICINE--CONGRESSES)

M. P. FILIPPOV

USSR/Physical Chemistry - Molecule, Chemical Bond. B-4

Abs Jour : Referat Zhur - Khimiya, No 1, 1958, 99

Author : A.V. Ablov, M.P. Filippov.
Inst : -
Title : Light Absorption by Complex Compounds of Trivalent Cobalt. I. Dependence of Absorption Spectra of Compounds of $[CoEn_2Amine\ Cl]X_2$ Type on Nature of Co-ordinated Amine.

Orig Pub : Zh. neorgan. khimii, 1957, 2, No 1, 42-52

Abstract : The absorption spectra of solutions of cations $[CoEn_2Amine\ Cl]$ in 0.1 n. HCl were investigated. Ethylamine, benzylamine, aniline, n-fluoraniline, n-chloraniline, m-toluidine, o-anisidine, O-phenetidine and n-anisidine were the amines in this cations. 3 absorption bands were found in the absorption spectrum of the cations $[CoEn_2(XC_6H_4NH_2)Cl]^{2+}$ at 520, 305 to 345 and 232 to 235 mμ. A 4th absorption band was also observed at 215 to 218 mμ in some cases (amine = n-chloraniline, O-anisidine and o-phenetidine).

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Kishinev State Univ

USSR/Physical Chemistry - Molecule, Chemical Bond. B-4

Abs Jour : Ref Zhur - Khimiya, No 1, 1958, 99

The 1st and 3rd absorption bands little depending on the nature and position of the substitute in the aniline nucleus are attributed to the groupation $En_2CoCl(C_6H_5NH_2)$. The stability of the position of the 1st band notwithstanding the differences in the limits of the fluctuations of dipole moments of the amines (from 1.51 to 2.97) contradicts the electrostatic theory of Hartmenn (RZhKhim, 1956, 3162). The position of the 2nd band depends on the nature of the substitute, as well on the substitution type, and its bathochromic shift rises in the series n-F, $m\text{-}CH_3$, n-Cl, $n\text{-}CH_3$, $O\text{-}OCH_3$, $o\text{-}OC_2H_5$, and $n\text{-}OCH_3$. The absorption spectra of $[CoEn_2(NH_2C_2H_5)Cl]^{2+}$ and $[CoEn_2(NH_2CH_2C_6H_5)Cl]^{2+}$ are very close and differ only in the left hand branch of the short wave band. Considering

Card 2/3

USSR/Physical Chemistry - Molecule, Chemical Bond. B-4

Abs Jour : Ref Zhur - Khimiya, No 1, 1958, 99

the similarity of the absorption spectra of these two cations with the spectrum of 1.2-$[CoEn_2NH_3Cl]^{2+}$, the

authors arrive at the conclusion regarding the cis-structure of the investigated cations. It is postulated that the structure of all the other studied cations is also a cis-structure. The synthesis of $[CoEn_2.(n\text{-}C_6H_4NH_2Cl)Cl]Cl_2.H_2O$ and $[CoEn_2(NH_2C_2H_5)Cl]S_2O_6.H_2O$ is described.

Card 3/3

Filippov M.P.

ABLOV, A.B.; FILIPPOV, M.P.

Absorption of light by complex compounds of trivalent cobalt. Part 2: Dependence of absorption spectra for compounds of [bis (ethylenediamine) ammino-bromocobalt(III)] salts. Zhur. neorg. khim. 2 10:2390-2399 O '57. (MIRA 11:3)

1. Kishinevskiy gosudarstvennyy universitet.
(Cobalt) (Absorption spectra) (Complex compounds)

FILIPPOV, M.P., Doc Chem Sci -- (diss) "Absorption of light by complex compounds of tri-valent cobalt." Kishinev, 1958, 16 pp (Min of Higher Education USSR. Kishinev State Univ) 100 copies (KL, 29-58, 129)

AUTHORS: Ablov, A.V., Filippov, M.P. SOV/78-3-7-17/44

TITLE: III. The Dependence of the Absorption Spectrum of the Compound of the Type $[Co.Amin_2(DH)_2]_x$ on the Nature of the Coordination Amine (III. Zavisimost' spektrov pogloshcheniya soyedineniy tipa $[Co.Amin_2(DH)_2]_x$ ot prirody koordinirovannogo amina)

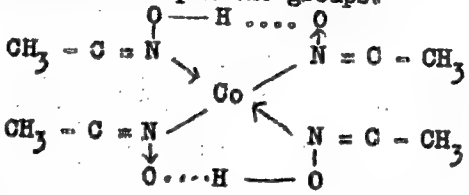
PERIODICAL: Zhurnal neorganicheskoy khimii, 1958, Vol. 3, Nr 7, pp. 1565-1572 (USSR)

ABSTRACT: The absorption spectrum within the range of λ = 210-650 mμ up to dimethylglyoxymodiaminecobalt-cation complex $[Co(Amin_2)(DH)_2]^+$ was investigated, in which amine = ammonia, pyridine, aniline, o-, m- and p-toluidine, m- and p-chloroaniline, m- and p-bromo-aniline, p-iodine aniline, o- and p-anisidine and o-phenetidine. DH denotes the remainder of dimethyl glyoxin. The first line of the investigated compounds shifts in the direction of the short wave range in contrast to the corresponding ethylene-diamine compounds. The occurrence of new intense lines in the absorption spectrum on the introduction of aniline into the inner sphere of the complex is caused by the group Co-N<⬭>. During exchange into the complex $[Co(NH_3)_2(DH)_2]^+$ of one molecule ammonia for

Card 1/2

III. The Dependence of the Absorption Spectrum of the Compound of the Type $[Co.Amin_2(IH)_2]x$ on the Nature of the Coordination Amine

one chlorine atom the position of the lines of the absorption spectrum changes only slightly. The occurrence of the lines in the absorption spectrum at 250 mμ does not depend on the nature of the amine but upon the groups.



There are 7 figures, 3 tables, and 11 references, 5 of which are Soviet.

ASSOCIATION: Kishinevskiy gosudarstvennyy universitet (Kishinev State University)

SUBMITTED: June 10, 1957

Card 2/2 1. Complex compounds--Spectra 2. Complex compounds--Chemical reactions 3. Amines--Chemical properties

5(2) SOV/78-4-10-6/40

AUTHORS: Ablov, A. V., Filippov, M. P.

TITLE: Dependence of the Absorption Spectra of the Glyoximines of Trivalent Cobalt of the $[Co(Amine)(DH)_2Hal]$ Type on the Nature of the Co-ordinated Amine

PERIODICAL: Zhurnal neorganicheskoy khimii, 1958, Vol 4, Nr 10, pp 2204-2212 (USSR)

ABSTRACT: In the formula mentioned in the title D denotes dimethyl glyoxime, hal - chlorine or bromine, amine - ammonia, pyridine, aniline, o-, m-, p-toluidine, o-, m-, p-chloro-aniline or o-, m-, p-bromo-aniline. The production of these non-electrolytes according to the method of L. A. Chugayev (Ref 5) does not yield pure preparations. For this reason the reaction of ammonia and amines with diazido-bis-dimethylglyoxime-cobaltic acids found by A. V. Ablov and N. M. Samus' (Ref 6) was used. The analyses of the preparations are given in table 1. In figures 1-5 the light absorption curves are shown and in table 2 position and intensity of the absorption bands in the region 210-600 mμ. In contrast with the dioxime electrolytes of the structure $[Co(amine)_2(DH)_2]^+$ the compounds investigated

Card 1/2

Dependence of the Absorption Spectra of the Glyoximines of Trivalent Cobalt of the $[Co(Amine)(DH)_2Hal]$ Type on the Nature of the Co-ordinated Amine

exhibit primary bands in the inner sphere owing to the presence of the halogen, the position of which does not depend on the dipole moment of the aromatic amine, which, however, can be masked by an intense ultraviolet absorption. The band in the range 340-370 mμ depends on the nature of the co-ordinated aromatic amine and is shifted into the short-wave range with respect to the band of the diamine electrolytes owing to the trans-position of the halogen. The band in the range of from 250-300 mμ is due to the $Co(DH)_2$ group. There are 5 figures, 2 tables, and 11 references, 8 of which are Soviet.

ASSOCIATION: Otdel neorganicheskoy khimii Moldavskogo filiala Akademii nauk SSSR (Department of Inorganic Chemistry of the Moldau Branch of the Academy of Sciences, USSR)

SUBMITTED: June 19, 1958

ABLOV, A.V.; FILIPPOV, M.P.; SAMUS', N.M.

Existence of cis- and trans-diaquobis(dimethylglyoximato) cobaltates(III). Dokl.AN SSSR 133 no.3:575-577 Jl '60. (MIRA 13:7)

1. Moldavskiy filial Akademii nauk SSSR i Kishinevskiy gosudarstvennyy universitet. Predstavleno akad. I.I.Chernyayevym.
(Cobalt compounds)

ABLOV, A.V.; FILIPPOV, M.P.

Change in the absorption of light accompanying the splitting of a proton off bis (dimethylglyoxime) compounds of trivalent cobalt. Zhur. neorg. khim. 5 no. 12:2717-2726 D '60. (MIRA 13:12)

1. Moldavskiy filial Akademii nauk SSSR, Institut khimii.
(Cobalt compounds)

FILIPPOV, M.P.

Spectrophotometric determination of isophthalic and terephthalic acids and their mixture. Zhur. VKhO 6 no.6:706-707 '61.
(MIRA 14:12)

1. Lisichanskiy filial Gosudarstvennogo instituta azotnoy promyshlennosti.
(Isophthalic acid--Spectra) (Terephthalic acid--Spectra)

ABLOV, A.V.; FILIPPOV, M.P.

Spectrophotometric study of the acid-base equilibrium of cobalt (III) dioximine complexes. Zhur.neorg.khim. 7 no.5:1021-1027 My '62. (MIRA 15:7)

1. Moldavskiy filial AN SSSR, Institut khimii.
(Cobalt compounds—Spectra) (Oximes)
(Acid-base equilibirum)

FILIPPOV, M.P.

PHASE I BOOK EXPLOITATION SOV/6259

Poltavets, Ivan Mikhaylovich, Faina Fedorovna Sinitsyna, Mark Petrovich Filippov, and Mikhail Panteleymonovich Kolyada

Ostryye radiatsionnyye porazheniya i ikh lecheniye (Acute Radiation Diseases and Their Treatment) Kiyev, Medgiz UkrSSR, 1962. 154 p. (Series: Biblioteka prakticheskogo vracha) 4180 copies printed.

Ed.: N. I. Konstantinov; Tech. Ed.: L. A. Zapol'skaya.

PURPOSE: The book is intended for physicians in all specialities and for students of advanced courses at medical institutes.

COVERAGE: The book describes methods of treating severe radiation injuries, the treatment of patients with radiation sickness, and the pathological changes occurring in the organism in the course of radiation sickness. Classification, diagnosis, and evacuation of casualties from areas of massive destruction and the organization of dosimetric control among the personnel and

Card 1/5

Acute Radiation Diseases and Their Treatment SOV/6259

in the installations of the civilian defense medical service are discussed in the light of the most recently promulgated operational procedures. There are 47 references, all Soviet, including three translations.

TABLE OF CONTENTS:

Card ~~3/5~~ 2/2

FILIPPOV, M.P.; RUCH'YEVA, N.I.

Spectrophotometric determination of terephthalic acid in a mixture of benzenecarboxylic acids. Zhur.anal.khim. 17 no.5:642-643 Ag '62. (MIRA 16:3)

1. Lisichanskiy filial Gosudarstvennogo nauchno-issledovatel'skogo i proyektnogo instituta azotnoy promyshlennosti i produktov organicheskogo sinteza, Severodonetsk.
(Terephthalic acid--Spectra)
(Benzenecarboxylic acids)

KODNER, M. S.; FILIPPOV, M. P.; GUSHCHINA, L. F.

Determination of benzoic, isophthalic, and terephthalic acids in their mixtures. Zhur. VKHO 8 no.2:229-230 '63. (MIRA 16:4)

1. Lisichanskiy filial Gosudarstvennogo nauchno-issledovatel'skogo i proyektnogo instituta azotnoy promyshlennosti i produktov organicheskogo sintesa.

(Benzoic acid) (Isophthalic acid)
(Terephthalic acid)

FILIPPOV, M.P.; RUCH'YEVA, N.I.; KODNER, M.S.

Colorimetric determination of cyclohexanone oxime in cyclohexane and water-insoluble resins. Zav.lab. 29 no.5:549 '63. (MIRA 16:5)

1. Lisichanskiy filial Gosudarstvennogo instituta azotnoy promyshlennosti.
(Cyclohexanone) (Cyclohexane) (Colorimetry)

FILIPPOV, M.P.; VYSOTSKIY, Yu.L.

Cuvette for luminescent analysis at low temperatures. Zav. lab. 29 no.9:1147-1148 '63. (MIRA 17:1)

1. Lisichanskiy filial Gosudarstvennogo instituta azotnoy promyshlennosti.

RUCH'YEVA, N.I.; FILIPPOV, M.P.

Determination of vinyl acetate in its mixture with alkyl vinyl ethers. Zhur. anal. khim. 19 no.3:386-388 '64.
(MIRA 17:9)

1. Lisichanskiy filial Gosudarstvennogo nauchno-issledovatel'skogo i proyektnogo instituta azotnoy promyshlennosti i produktov organicheskogo sinteza, Severodonetsk.

FILIPPOV, M.P.; KAGANSKIY, I.M.; PANCHENKO, V.S.; KUTSENKO, V.P.

Spectrophotometric determination of a nitrate ion in complex fertilizers. Zav.lab. 30 no.12:1444-1446 '64. (MIRA 18:1)

1. Severodonetskiy filial Gosudarstvennogo instituta azotnoy promyshlennosti.

FILIPPOV, M.P.; ZAYTSEVA, L.F.; ZAYTSEVA, Z.V.; CHUKUR, A.P.

Determination of vinyl alkyl adipates in their mixture with vinyl acetate by the bromide-bromate method. Zhur. anal. khim. 20 no.1:132-134 '65. (MIRA 18:3)

1. Severodonetskiy filial Gosudarstvennogo nauchno-issledovatel'skogo i proyektnogo instituta azotnoy promyshlennosti i produktov organicheskogo sinteza.

FILIPPOV, M.P.; NUGER, Ya.A.

Formation of molybdenum blue. Zhur. neorg. khim. 10 no.1: 283-285 Ja '65. (MIRA 18:11)

1. Severodonetskiy filial Gosudarstvennogo instituta azotnoy promyshlennosti. Submitted Febr. 11, 1964.

FILIPPOV, M.P.; IVOLGA, N.F.

Spectrophotometric determination of diphenylolpropane in phenol. Zhur. VKHO 9 no. 2:234-235 '64. (MIRA 17:9)

1. Lisichanskiy filial Gosudarstvennogo instituta azotnoy promyshlennosti.

FILIPPOV, M.S.

AID P - 3519

Subject : USSR/Power Eng

Card 1/1 Pub. 26 - 13/30

Authors : Agafonov, M. S., F. T. Makeyev, and M. S. Filippov, Engs.

Title : 25 years of operation of the Chelyabinsk State Regional Power Plant of the Order of Lenin

Periodical : Elek. sta., 9, 42-43, S 1955

Abstract : The article describes the 25 years of operation of this power plant, without mentioning any engineering details. Names of workers and repairmen are given.

Institution : None

Submitted : No date

KOMLEV, L.V.; FILIPPOV, M.S.; DANILEVICH, S.I.; IVANOVA, K.S.

Geochemistry of radioactive elements in rocks found in the Kirovograd - Zhitomir magmatic complex in Ukraine. Trudy Radiev. inst.AN SSSR 7:155-199 '56. (MLRA 10:5)
(Ukraine--Radioactive substances)

Filippov, M. S.

KOMLEV, L.V.; DANILEVICH, S.I.; IVANOVA, K.S.; MIKHALEVSKAYA, A.D.; SAVONENKOV, V.G.; FILIPPOV, M.S.

Age of geological formations in the south-west part of the Ukrainian pre-Cambrian [with summary in English]. Geokhimiia no.7:566-572 '57. (MIRA 11:1)

1. Radiyevyy institut AN SSSR, Leningrad.
(Ukraine--Geology, Structural)
(Nuclear geophysics)

KOMLEV, L.V.; DANILEVICH, S.I.; IVANOVA, K.S.; ZYKOV, S.I.; KUCHINA, G.N.; MIKHALEVSKAYA, A.D.; FILIPPOV, M.S.

On the age of some rare metal granite intrusions in Central Kazakhstan [with summary in English]. Geokhimiia no.8:647-656 '57. (MIRA 11:2)

1.Radiyevyy institut AN SSSR, Leningrad.
(Geology, Stratigraphic) (Kazakstan--Granite)
(Nuclear geophysics)

FILIPPOV, M. S.: Master Geolog-Mineralo Sci (diss) -- "Radioactive elements in the granites of the central Dnepr area". Leningrad, 1958. 23 pp (Leningrad Order of Lenin State U im A. A. Zhdanov), 150 copies (KL, No 6, 1959, 128)

FILIPIOV, M. S.

FILIPIOV, M. S.

Filippov, M. S. - The Age of the Rare Metal Akchatau Intrusion According to Data Obtained by the Lead and Argon Method.

The Sixth Session of the Committee for Determining the Absolute Age of Geologic Formations at the Department of Geologic-Geographical Sciences (OGGN) of the USSR Academy of Sciences at Sverdlovsk in May 1957.

Izv. Ak Nauk SSSR, Ser. Geol., No. 1, 1958, p. 115-117 author Pekarskaya, T. B.

FILIPPOV, M. S.

Filippov, M. S. - The Age of Geologic Formations of the South-Western Parts of the Ukrainian Pre-Cambrian (Podolia).

The Sixth Session of the Committee for Determining the Absolute Age of Geologic Formations at the Department of Geologic-Geographical Sciences (OGGN) of the USSR Academy of Sciences at Sverdlovsk in May 1957.

Izv. Ak Nauk SSSR, Ser. Geol., No. 1, 1958, p. 115-117 author Pekarskaya, T. B.

FILIPPOV, M.S.

Filippov, M.S., - New Data on the Age of the Ukrainian Pre-Cambrian.

The Sixth Session of the Committee for Determining the Absolute Age of Geologic Formations atthe Department of Geologic-Geographical Sciences (OGGN) of the USSR ACademy of Sciences at Sverdlovsk in May 1957

Izv. Ak Nauk SSSR, Ser. Geol., No. 1, 1958, p. 115-117 author Pekarskaya, T. B.

FILIPTOV, M.S.; KOMLEV, L.V.

Thorites of the central Dnieper Valley. Trudy Radiev.inst. AN SSSR. 8:241-249 '58. (MIRA 12:2)
(Dnieper Valley--Phosphothorite)

3(8) SOV/7-59-2-3/14

AUTHORS: Komlev, L. V., Filippov, M. S, Danilevich, S. I., Ivanova, K. S., Kryukova, N. F., Kuchina, G. N., Mikhalevskaya, A.D.

TITLE: Age Data by the Argon and Lead Isotope Method for Some Granites and Pegmatites of the Central Dnepr Region (Vozrastnyye dannyye argonovogo i svintsovo-izotopnogo metodov dlya nekotorykh granitov i pegmatitov srednego Pridneprov'ya)

PERIODICAL: Geokhimiya, 1959, Nr 2, pp 110-115 (USSR)

ABSTRACT: This report was presented at the 7th meeting of the Commission for Determination of the Absolute Age of Geological Formations. An investigation was made of mica from granites and pegmatites, and of accessory monazites and orthites from pegmatite veins. In order to calculate their age from the results of the K/Ar determination the disintegration constants according to Wetherill et al. were used (Ref 9). For comparative purposes the age was also calculated by the constants found by E. K. Gerling (Ref 10), which had until recently been used in the Soviet Union for age determinations. Table 1 lists 16 determinations of micas from granites and granodiorites. Values are between 1830 and 2280 million years; biotite from the Yamburgskiy Quarry on the Mokraya Sura River attains 2900 and even

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SOV/7-59-2-3/14

Age Data by the Argon and Lead Isotope Method for Some Granites and Pegmatites of the Central

2910 million years. Furthermore, two samples each of orthite and monazite were investigated (Tables 2, 3, 4). In order to check the results these analyses were repeated two times. Orthite from Korbino has an age of 2100-2610 million years, biotite from the same place 2280 million years (Table 1). Similarly, it was possible to compare two monazites from the Novo-Danilovskiy Quarry: monazites 1520-2100 million years, biotite 2020 million years. Orthite of Podstepnoye has an age of 2400-3000 million years. This shows that orthite pegmatites may be characterized as relics. There are 4 tables and 12 references, 11 of which are Soviet.

ASSOCIATION: Radiyevyy institut im. V. G. Khlopina, AN SSSR, Leningrad
(Radium Institute imeni V. G. Khlopin, AS USSR, Leningrad)

SUBMITTED: July 2, 1958

Card 2/2

AUTHORS: Filippov, M. S., Komlev, L. V. SOV/7-59-5-6/14

TITLE: Uranium and Thorium in the Granitoids of the Middle Pridneprov'-ye (Uran i toriy v granitoidakh Srednego Pridneprov'ya)

PERIODICAL: Geokhimiya, 1959, Nr 5, pp 437 - 448 (USSR)

ABSTRACT: Three complexes of granitoids of the Ukrainian crystalline shield were investigated. The determination of uranium and thorium was carried out in the Laboratoriya geokhimii radio-aktivnykh elementov RIAN SSSR (Laboratory of the Geochemistry of the Radioactive Elements RIAN USSR); the activity was measured with electrometers of the type SG-1M. K. S. Ivanova, S. I. Danilevich, V. G. Savonenkov assisted in the investiga-tions. The following complexes were investigated: 1) The oldest complex of granodiorites and plagiogranites has an extraordi-narily low content:

$1.2.10^{-4}$%U, $0.5.10^{-3}$%Th. With respect to the accessory minerals it belongs to the orthite-sphene-granites. 2) The content of the widely distributed Kirovograd-Zhitomir granites corresponds approximately to the normal Clarke figures ($5.7.10^{-4}$%U, $3.3.10^{-3}$%Th). These granites belong, according to the accessory minerals, to the monazite-garnet group; a part of them to the

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orthite-sphene-granites. 3) The most recent of the three investigated complexes, the Tokovskiy complex, is considerably enriched with thorium and uranium: $9.7.10^{-3}$%Th and $9.3.10^{-4}$%U. Carrier is above all thorite. The "black quartz" granite of the river Ingulets belongs, according to the accessory minerals to the monazite-garnet group, the tokovskiy granite to the thorite-molybdenite granites. The results confirm the rule detected by Komlev (Ref 16) that uranium and thorium are enriched in the more recent granites. There are 4 figures, 6 tables, and 16 Soviet references.

ASSOCIATION: Radiyevyy institut im. V. G. Khlopina AN SSSR, Leningrad
(Radium Institute imeni V. G. Khlopin AS USSR, Leningrad)

SUBMITTED: October 20, 1958

S/015/60/000/009/003/005
A052/A129

AUTHOR: Filippov, M. S.

TITLE: Radioactive elements in granites of the central Dnepr region

PERIODICAL: Referativnyy zhurnal.Geologiya, 1960, no. 9, 182, abstract 16996 (Avtoref. diss. kand. geol.-mineralog. n., LGU, Leningrad, 1958)

TEXT: On the basis of three granitoid agglomerates of a different age it is established that the younger rocks have a lower Na, Ca, and Mg content and a higher K, U and Th content compared with more ancient agglomerates. The preferential geochemical combination of U and Th with acid granitoids rich in alkalis is confirmed. [Abstracter's note: Complete translation]

Card 1/1

15.9205

30447
S/081/62/000/012/058/063
B158/B101

AUTHORS: Dzhagatspanyan, R. V., Zetkin, V. I., Motsarev, G. V., Filippov, M. T.

TITLE: Chlorination of silicon-containing monomers and polymers under the effect of gamma-radiation

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 12, 1962, 612-613 abstract 12P282 (Sb. "Radioakt. izotopy i yadern. izlucheniya v nar.kh-ve SSSR. V. I.". M., Gostoptekhizdat., 1961, 197-200)

TEXT: Polydimethylsiloxane rubber (I) and polyphenylmethylsiloxane (II) as well as a number of monomers were chlorinated at 0°C under the action of γ-radiation (Co^{60} with an activity of 1400 g-equiv of Ra). Chlorination of I takes place easily and rapidly until the introduction of an average of two Cl atoms into the chain of the polymer, after which the process rate falls sharply. In a metal autoclave at both 0°C and 60°C destruction of the polymer takes place. With chlorination of II (molar

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Chlorination of silicon-containing ...

ratio of Cl:siloxane = 2:1 and 3:1) substitution and addition chlorination takes place in the aromatic ring. With chlorination of $(CH_3)_3ClSi$ (molar ratio of Cl_2:silane = 0.51:1) the basic product is a monochlorine derivative; chlorination of 18.6 g of ethyl-trichlorosilane (molar ratio of Cl_2:silane = 0.35:1) gives 6.5 g of α and β-chloroethyl-trichlorosilanes. Chlorination of methyl-phenyl dichlorosilane results in the formation of $(C_6H_2Cl_3)(CCl_3)SiCl_2$ (b. p. 185-188/10 mm). [Abstracter's note: Complete translation.]

Card 2/2

21135

S/190/61/003/004/010/014
B101/B207

15 8116 2209, 1372

AUTHORS: Dzhagatspanyan, R. V., Zetkin, V. I., Motsarev, G. V., Filippov, M. T.

TITLE: Chlorination of organo-silicon monomers and polymers under the action of gamma rays. I. Chlorination of liquid polyphenyl-methyl siloxane and of polydimethyl siloxane rubber. The infrared spectra of the chlorination products

PERIODICAL: Vysokomolekulyarnyye soyedineniya, v. 3, no. 4, 1961, 607-612

TEXT: In the introduction, the authors state that initiating the chlorination of organosilicon compounds by means of ultraviolet light proceeds too slowly, however, that chemical initiators as e.g., benzoyl peroxide require a higher temperature at which a sufficient chlorination of methyl chloro silanes is not possible owing to their instability. Therefore, the present study aimed at initiating chlorination by means of gamma rays of Co^{60} at low temperatures. The following compounds were chlorinated: 1) Polyphenyl-methyl siloxane (poly-PMS) (molecular weight 2000), and 2) three samples of polymethyl siloxane rubber (poly-MSR) (molecular weight

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400,000-500,000). 4-5% solutions of the polymers in CCl_4 were used, to which chlorine taken from the cylinder was added. The samples were irradiated in sealed ampoules at 0°C with gamma rays of Co^{60}, activity 1400 g. equ radium. Tables 1 and 2 list the results. Heating with 40% KOH of a chlorinated poly-PMS sample with 55.5% Cl yielded a paste from which crystals with a chlorine content of 64.3-66.7% were separated. On the basis of analytical results, they obtain the empirical formula $C_6H_6Cl_4$ or $C_6H_4Cl_4$.

The infrared spectra of the oily residue of hydrolysis showed an intensive band at 9-10 μ which corresponds to the Si-O bond. Chlorination of poly-MSR led, according to the sample used, to quite different results with respect to the intensity of reaction and the chlorine content of the product obtained. This is due to impurities (catalyst residues) in commercial poly-MSR. Study of the infrared spectra yielded 3690 and 3615 cm^{-1} bands both in initial and chlorinated rubber. These bands are due to OH groups (3690 cm^{-1} free OH; 3615 cm^{-1} OH with H bond). Accordingly, commercial poly-MSR contains silanol groups. As a result of spectral analysis the following is stated: though the IR spectra of chlorinated poly-PMS and poly-MSR differ from those of the initial samples, no absorption bands were found to exist which are characteristic of chlorinated substances.

S/190/61/003/004/010/014
B101/B207

Chlorination of ...

There are 2 figures, 5 tables, and 14 references: 8 Soviet-bloc and 6 non-Soviet-bloc. The 2 references to English-language publications read as follows: Ch. Tamborcki, H. W. Post, J. Org. Chem., 17, 1400, 1952; C. W. Joung, P. C. Servais, C. C. Currie, M. J. Hunter, J. Amer. Chem. Soc., 70, 3758, 1948.

SUBMITTED: July 15, 1960

(1) Опыт №	(2) Загружено реагентов, г: (4) хлор	(2) Загружено реагентов, г: (5) полимер	(3) Соотношение молей Cl / основомоль	(4) Мощность дозы, р/сек	(5) Время облучения, мин	(6) Вес продукта, г	(7) Содержание хлора, %: (8) найдено	(7) Содержание хлора, %: (9) вычислено
1	4,70	4,65	1,97 : 1	70	30	8,874	48,6	51
2	7,2	4,65	2,98 : 1	70	30	11,425	59,5	61
3	4,9	3,12	3 : 1	120	2	6,4819	56,1	61
4	4,9	3,12	3 : 1	120	5	7,0128	54,6	61
5	4,9	3,12	3 : 1	120	10	7,6840	56,7	61
6	2,43	4,08	1 : 1	120	15	7,1914	33,9	34,3
7	3,3	3,12	2,03 : 1	120	[illegible]	5,9015	50,2	51

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S/844/62/000/000/066/129
D204/D307

AUTHORS: Dzhagatspanyan, R. V., Zetkin, V. I., Motsarev, G. V. and Filippov, M. T.

TITLE: The chlorination of phenylmethyldichlorosilane (I) and dimethyldichlorosilane (II) under the action of γ irradiation

SOURCE: Trudy II Vsesoyuznogo soveshchaniya po radiatsionnoy khimii. Ed. by L. S. Polak. Moscow, Izd-vo AN SSSR, 1962, 386-389

TEXT: I was chlorinated in sealed ampoules, at 0 and 20°C, under γ irradiation (~120 r/sec, over 15 or 30 min), with molar ratios (n) of Cl_2 : I equal to 0.25:1, 0.5:1, and 1:1, since polychlorinated silanes are of interest in preparing fluorinated Si-containing monomers and polymers. In contrast to chemically initiated chlorination of I, the present reaction was one of addition of Cl_2 into the aromatic ring rather than substitution into the methyl

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The chlorination of ...

group, the main product being a viscous oil, which by chemical and ir spectroscopic tests proved to be $CH_3.C_6H_5Cl_6SiCl_2$. A small amount of CH_3-chlorinated compounds was also formed. No product in which chlorination of CH_3- and C_6H_5-groups occurred simultaneously was observed, although it might form in initial mixtures richer in Cl_2. Silane II was similarly chlorinated at 0°C, with n equal to 0.3:1 and 0.5:1, under 2 min doses of γ rays at ~120 r/sec, to give ~30% yields of the monochloride and 5 to ~17% yields of the dichloride, the latter becoming greater with increasing n. There are 4 tables.

ASSOCIATION: NII Goskomiteta, Soveta Ministrov SSSR po khimii (NII for Chemistry of the State Committee, Council of Ministers of the USSR)

Card 2/2

S/076/62/036/008/004/011
B101/B144

AUTHORS: Filippov, M. T., Dzhagatspanyan, R. V., Motsarev, G. V., and Zetkin, V. I.

TITLE: Infrared spectra of organochlorosilanes containing chlorine in the organic group

PERIODICAL: Zhurnal fizicheskoy khimii, v. 36, no. 8, 1962, 1751 - 1754

TEXT: IR spectra of $CH_3C_6H_5SiCl_2$ (I); $CH_2ClC_6H_5SiCl_2$ (II); $CHCl_2C_6H_5SiCl_2$ (III); $CCl_3C_6H_5SiCl_2$ (IV); $(CH_3)_2SiCl_2$ (V); $CH_2ClCH_3SiCl_2$ (VI), and $CHCl_2CH_3SiCl_2$ (VII) were studied with the following results: (1) The 3.35 and 3.4μ bands correspond to the asymmetric and symmetric stretching vibrations of CH in the methyl group. (2) The position of the bands in the range 11-16μ strongly depends on the degree of chlorination: The 11.76 - 12.7μ band of V in VI becomes weaker and is shifted toward longer waves; in VII it splits into two bands. (3) The 12.58μ band of I corresponds to the Si-bound CH_3 group. It changes with the degree of

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Infrared spectra of...

chlorination and disappears in IV. (4) The bands of 13-15μ for I-IV correspond to the C_6H_5 groups. (5) The 15.62μ band of VI and the 15.38μ band of II are ascribed to the $SiCH_2Cl$ group. There are no bands in this range for the other compounds. (6) In the case of IV, 11.36 and 11.90μ bands were observed which appear due to symmetric and asymmetric stretching vibrations of the C-Cl bond in CCl_3. This was confirmed by the fact that $CCl_3(CH_3)Si(OC_2H_5)_2$ and $(CCl_3)_2Si(OC_2H_5)_2$ also showed bands in the range 11-11.4μ which were absent in compounds containing no CCl_3 group. There are 5 figures and 2 tables.

SUBMITTED: November 9, 1960

Card 2/2

ACCESSION NR: AP4034544 S/0020/64/155/005/1163/1166

AUTHORS: Dzhagatspanyan, R.V.; Filippov, M.T.; Motsarev, G.V.; Zetkin, V.I.; Rozenberg, V.R.

TITLE: Radiative chlorination of certain organochlorosilances and organopolysiloxanes

SOURCE: AN SSSR. Doklady*, .v. 155, no. 5, 1964, 1163-1166

TOPIC TAGS: chlorination, irradiation chlorination, organochlorosilane, organopolysiloxane, chlorination mechanism, polydimethylsiloxane, polyphenylmethylsiloxane, ethyltrichlorosilane, methyltrichlorosilane, dimethyldichlorosilane, phenyltrichlorosilane, phenylmethyldichlorosilane, photochemical chlorination, substitution chlorination, addition chlorination, ionic mechanism, free radical mechanism

ABSTRACT: The mechanisms involved in the chlorination of various organosilane derivatives under the influence of Co^{60} radiation were investigated. A polydimethylsiloxane resin, molecular weight 400,000-500,000, was chlorinated at 0C as a 4% solution in CCl_4. After

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ACCESSION NR: AP4034544

chlorination under 4200 rad/min. radiation the chlorine content was 50-55%; optimum reaction time was 15-30 minutes. Total radiation greater than 1.25×10^5 rad did not lead to a higher chlorine content, but promoted degradation of the polymer. By chlorinating polyphenylmethylsiloxane under the same conditions, products containing up to 56.1% chlorine were obtained. About 80% of the chlorine reacted with the aromatic nucleus and 20% replaced hydrogens on a methyl group. Chlorination of ethyltrichlorosilane (molar ratio Cl_2: $C_2H_5SiCl_3$=3:7) at 0C using 900 rad/min gave α- and β-monochloroderivatives in a ratio of 1:1.7, corresponding to results obtained by photochemical chlorination. On chlorinating methyltrichlorosilane and dimethyldichlorosilane the amount of monochloro derivatives in the reaction mixture did not depend on the molar ratio of reagents and the change in the amount of dosage did not influence the products of chlorination. The relative reaction rate of methyltrichlrosilane did not depend on the concentration of chlorine and at 0C and 3300 rad/min equaled 0.148 ± 0.030 moles/liter-min. The magnitude is proportional to the square root of the power of dosage. The energy

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ACCESSION NR: AP4034544

of activation is about 7300-6100 cal/mole for the reaction. Phenyltrichlorosilane and phenylmethyldichlorosilane were chlorinated at 0-150C at 5900 and 800 rad/min at 0-20C. The chlorine added to the double bond of the aromatic nucleus giving $C_6H_5Cl_6SiCl_3$ and $C_6H_5Cl_6(CH_3)SiCl_2$. This additive chlorination under radiation is analgous to photochemical chlorination. At 50C, addition chlorination products as well as products of substition chlorination in the methyl group and the aromatic nucleus were formed. At 100-150C substitution chlorination of the aromatic nucleus predominated indicating ionic mechanism for the arylalkylchlorosilanes. A free radical mechanism was postulated for the alkylchlorosilanes. Orig. art. has: 11 equations and 1 table

ASSOCIATION: None

SUBMITTED: 16Nov63 ENCL: 00

SUB CODE: OC NR REF SOV: 005 OTHER: 002

Card 3/3

L 16666-65 EWT(m)/EPF(c)/EWP(j)/EWA(h)/EWA(l) Pc-4/Pr-4/Pa-4 RM

ACCESSION NR: AP4044020 S/0063/64/009/004/0475/0476

AUTHORS: Filippov, M.T.; Dzhagatspanyan, R.V.; Motsarev, G.V.; Zetkin, V.I.

TITLE: Radiation chlorination of ethyltrichlorosilane, methyltrichlorosilane and dimethyldichlorosilane

SOURCE: Vsesoyuznoye khimicheskoye obshchestvo. Zhurnal, v. 9, no. 4, 1964, 475-476

TOPIC TAGS: radiation chlorination, reaction mechanism, alkylchlorosilane chlorination, liquid phase radiation chlorination, ethylchlorosilane, methyltrichlorosilane, dimethyldichlorosilane, ethyltrichlorosilane, chloromethyltrichlorosilane, chlorination reaction, polychloromethyltrichlorosilane

ABSTRACT: The reaction mechanism of radiation-initiated chlorination of alkyl-chlorosilanes was studied. Liquid phase Co^{60} radiation-initiated chlorination of ethyltrichlorosilane with molar ratios of Cl/silane ranging from 0.15 to 0.35 resulted in the formation of α and β monochloro derivatives only, with the proportion of $\beta/\alpha = 1.72$ when reactant ratio was 0.26 or 0.35, and $\beta/\alpha = 1$ when

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L 16663-65

ACCESSION NR: AP4044020

reactant ratio = 0.15 or 0.18. Chlorination of methyltrichlorsilane with Cl/silane molar ratios ranging from 0.20 to 0.51 gave about 9% $CH_2ClSiCl_3$, and a total concentration of higher chloro derivates [illegible] safely proportional to the solar ratio. [illegible] dose [illegible] to 50 rad/sec. had no effect on [illegible] to 5 lowered over [illegible] increased [illegible] polychloro derivatives. Air retarded [illegible]. A radical chain mechanism is discussed for the radiation chlorination of methyltrichlorosilane wherein the rate of formation of $CH_2ClSiCl_3$ and overall reaction is determined by the reaction $CH_3SiCl_3 + Cl \rightarrow$ $\cdot CH_2SiCl_3 + HCl$, and the rate of its disappearance is determined by the reaction $ClCH_2SiCl_3 + Cl \rightarrow \cdot CHClSiCl_3 + HCl$. $CH_2ClSiCl_3$ is chlorinated about 10 times faster than CH_3SiCl_3; increasing temperature from 0 to 24.4C increased this chlorination rate about 3 times; the energy of activation is about 7300 cal/mol. The same general rules apply to the chlorination of dimethyldichlorosilane as to methyltrichlorosilane; the rate of the dimethyldichlorosilane chlorination at 0C is 19 times faster than for chlorinating methyltrichlorosilane; its energy of activation is 6100 cal/mol. The effects of the Cl/silane ratio in radiation chlorination are the same as in

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L 16660-65

ACCESSION NR: AP4044020

chemically initiated chlorination; the same rules and the radical chain mechanism of photochemically and chemically intiated chlorination obtain for radiation chlorination. Orig. art. has: 2 tables and 9 equations.

ASSOCIATION: None

SUBMITTED: 19Nov63 ENCL: 00

SUB CODE: GC NR REF SOV: 004 OTHER: 000

Card 3/3

MOTSAREV, G.V.; YAKUBOVICH, A.Ya.; ROZENBERG, V.R.; FILIPPOV, M.T.; DZHAGATSPANYAN, R.V.; BARDENSHTEYN, S.B.; KOLBASOV, V.I.; ZETKIN, V.I.

Halogenation of aromatic silanes. Part 17: Addition of chlorine to phenyl-trichlorosilane. Preparation of hexachlorocyclohexyl-trichlorosilane and the mechanism of its formation. Zhur. ob. khim. 35 no.7:1178-1183 Jl '65. (MIRA 18:8)

L 08669-67 EWT(m) WW

ACC NR: AP6015121 (A) SOURCE CODE: UR/0064/66/000/005/0018/0020

AUTHOR: Dzhagatspanyan, R. V.; Lyaskin, Yu. G.; Filippov, M. T.; Sinitsin, V. I.; Yakimenko, L. M.; Globova, L. I.; Zotkin, V. I.

58

ORG: none

TITLE: Radiation chlorination of kerosene 11

SOURCE: Khimicheskaya promyshlennost', no. 5, 1966, 18-20

TOPIC TAGS: kerosene, gamma radiation, chlorination, photochemistry

ABSTRACT: Groznyy kerosene, from which the aromatic and unsaturated compounds were eliminated by extraction with liquid SO_2 was used during chlorination initiated by γ-radiation of Co^{60} made in the apparatus described by the authors previously (Khim. prom. no. 4, 247, 1965). After purification the kerosene had a molecular weight of 177. Chlorine was passed at the rate of 0.469 g/min in the reactor set into a thermostat with a controlled given temperature. The radiation source was introduced after 15 minutes. The chlorination products were purified from Cl_2 and HCl by passing a flow of nitrogen. The densities and refractive indexes were measured and the degree of chlorination was determined from the graphs, plotted experimentally, showing the dependence of density d_{20}^{20} and the refractory indexes n_D^{20} of the chlorinated products on their chlorine content. Kinetic curves (content of chlorine vs time in min) were

Card 1/2 UDC: 665.634-4 : 66.094.403.085.3

L 08659-67

ACC NR: AP6015121

plotted at various temperatures of chlorination (T = 20, 40, and 60C) and at various doses of radiation (P = 26.1, 7.3, 1.8, and 0.81 rad/sec). The dependence of the radiation-chemical efficiency coefficient G (number of atoms bound with carbon per 100 equivalent)on the radiation dose P was plotted from kinetic curves. The expression $G = 1{,}22 \cdot 10^9 e^{-\left(\frac{1600}{T} + 5{,}76 \cdot 10^{-2}[\%Cl]\right)} P^{-0{,}47}$ well describes the results obtained. (Disagreement of experimental and calculated values averaged ± 10.8%.) This equation can be used for designing a reactor for a temperature range of 0-100C, a radiation dose of 1-50 rad/sec, and a chlorine content of 5-60%. The apparent energy of activation was determined as 3200 cal/mole. The results of radiation chlorination were compared with those of photochemical chlorination and chlorination initiated by azo-bis-isobutyronitryl. It was shown that the same degree of chlorination was achieved more rapidly during radiation chlorination. At T = 20C and P = 26 rad/sec, the product containing Cl > 60% was obtained in 90 minutes during radiation chlorination. It took 23 and 21 hours to obtain the same product by photochemical chlorination and chlorination initiated by azo-bis-isobutyronitryl, respectively. Radiation chlorination also has other advantages: it depends little on temperature and is controlled by the radiation dose (easily controllable rate of chlorination), the rate of the radiation process does not depend on the color of the reacting mixture, and there is a much smaller danger of resinification because of an absence of local overheating. Orig. art. has: 3 fig., 4 formulas, and 1 table.

SUB CODE: 07/ SUBM DATE: none/ ORIG REF: 001/ OTH REF: 001

Card 2/2

FILIPPOV, M.N., dotsent

Experiments pertaining to the effect of planting time on corn yields. Sbor.nauch.trud. Ivan.sel'khoz.inst. no.16:55-58 '58.
(MIRA 13:11)

1. Kafedra rasteniyevodstva Ivanovskogo sel'skokhozyaystvennogo instituta.

(Corn (Maize)) (Planing time)

8(3), 8(5) SOV/105-59-8-28/28

AUTHOR: Filippov, M. V., Engineer

TITLE: Nomogram for the Determination of the Functions $\varphi(k'h)$ and $\psi(k'h)$

PERIODICAL: Elektrichestvo, 1959, Nr 8, Inside of back cover (USSR)

ABSTRACT: These two functions serve to determine the resistance of rectangular conductors in the slot of an electric machine. When designing electric machines these functions must be calculated repeatedly for different values of k' and h. This can be done by means of this nomograph. The h-scale is divided into millimeters. An example is given. There is 1 figure.

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Filippov, M.V.

PHASE I BOOK EXPLOITATION SOV/3755

Akademiya nauk Latviyskoy SSR. Institut fiziki

Elektromagnitnyye yavleniya v metallakh (Electromagnetic Processes in Metals) Riga, Izd-vo AN Latviyskoy SSR, 1959. 200 p. (Series: Its: Trudy, No. 11) Errata slip inserted. 1,000 copies printed.

Ed.: A. Peytel'berg; Tech. Ed.: A. Elyerings; Editorial Board: V.O. Vitol, V.K. Kalnyn', I.M. Kirko (Resp. Ed.), and Ya. Ya. Klyavin'.

PURPOSE: This book is intended for physicists interested in electromagnetic processes in metals.

COVERAGE: This is a collection of fifteen articles by various authors on the investigation of electromagnetic processes in metals by modeling. Individual articles treat the following: conditions necessary for modeling particular phenomena; modeling the magnetization of ferromagnetic metals in a variable field on an iterated network consisting of choke coils with saturable reactors and constant resistances; external fields produced by ferromagnetic tubes which have been magnetized in a constant uniform field oriented along the axis; the possibility of using galvanic baths and other models for investigating fields with continuously distributed electromagnetic forces, particularly turbulent fields; the magnetization of a system of interacting cylindrical particles; determination of the criterion relationship for the motions of an asynchronous engine rotor with similar mechanical characteristics (rotational mass, period of rotational oscillations around a point of equilibrium and attenuation ratio) when the slip is close to unity; the problem of computing the ponderomotive forces acting on a cylindrical conducting body placed in the traveling magnetic field of a cylindrical inductor; the action of a sphere in magnetic hydrodynamics; the reflection and refraction of hydromagnetic waves of arbitrary polarization on the boundary of two ideal incompressible liquids with infinite conductivity; a study of phenomena in the turbulent flow of liquid metal in induction pumps under the effect of a traveling magnetic field; the working principle of d-c pumps and the computation of their electromagnetic and hydraulic characteristics; abbreviating computations in designing linear induction pumps as suggested by Yu.I. Tyutin; monographic computation of functions $\psi(k', h)$ and $\psi(k', h)$; and the construction of heaters producing thermal energy by an induced current. No personalities are mentioned. References accompany the articles.

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FILIPPOV, M.V.

PHASE I BOOK EXPLOITATION SOV/6352

Akademiya nauk SSSR. Vychislitel'nyy tsentr

Nomograficheskiy sbornik (Collected Papers on Nomography, no. 1.) Moscow, 1962. 248 p. 1800 copies printed.

Resp. Ed.: G. S. Khovanskiy, Candidate of Technical Sciences; I. A. Orlova; Tech. Ed.: A. I. Korkina.

PURPOSE: This collection of papers is intended for those engaged in research on and design of nomographs.

COVERAGE: This collection contains 27 papers concerning various aspects of the theory, construction, and use of nomograms for the solution of algebraic, functional, transcendental, and differential equations. No personalities are mentioned. There are 122 references: 102 Soviet (1 of which is a translation from the English), 8 German, 5 French, 2 English, 2 Spanish, 2 Rumanian, and 1 Czech.

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Collected Papers on Nomography SOV/6352

Card ~~4/10~~ 2/2

L 10713-65 EWT(1) AFFTC GW

ACCESSION NR: AR5009355 S/0270/65/000/003/0027/0028

SOURCE: Ref. zh. Geodeziya. Otd. vyp., Abs. 3.52.133

AUTHOR: Platonenko, M. A.; Filippov, M. V.

TITLE: Interpretation of agricultural lands on aerial photographs using regression equations

CITED SOURCE: Tr. Omskogo s.-kh. in-ta, v.55, no. 2, 1964, 73-80

TOPIC TAGS: aerial photography, aerial photograph interpretation, photogrammetry, regression equation

TRANSLATION: A statistical study has been made of the influence of the density of the photo tone in the office interpretation of an aerial photograph of agricultural lands. Ten contact prints at a scale of 1:14,000 were used. Between 20 and 30 characteristic features were noted on each of the prints. The values of the density of the photo tone were determined with an accuracy to 0.25 visual photometric unit on an 8-unit scale of a gradation positive. Soils were evaluated with an accuracy to 0.5 unit on a 10-unit scale prepared on the basis of the results of

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Field soil mapping from aerial photographs. Relief was estimated directly on the aerial photographs with an accuracy to 0.25 unit on a 5-unit scale, the lowest [illegible] was assigned to unit 1 and the highest [illegible] proposed features of agricultural lands then was prepared. The units scale were derived as the mean arithmetical units of [illegible] arguments. [illegible] proposed feature (PF) was assigned [illegible] scale arguments were evaluated separately: density of [illegible] (P), soil (S) [illegible] (R). On the basis of the observed data a composite correlation coefficient was derived for characterizing the dependence of PF on P, S and R. The determined value was 0.873. Then the special correlation coefficients were computed:

/$r_{\pi\Phi} = r_{PF,\Phi} = r_{P,P} = r_{R;\pi} = r_{S,}$/

Finally, a PF multiple regression equation was derived for P, S and R. PF = 0.76 + 0.22P + 0.19S + 0.32R. Such statistical investigations should be expanded in the direction of an increase of the number of interpretation criteria. The [illegible] equation derived on their basis can be used in developing a scheme of

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office interpretation. Bibliography of 7 items. Yu. Kennits.

SUB CODE: ES ENCL: 00

Card 3/3 mB

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S/057/60/030/009/014/021
B019/B054

24.7900

AUTHORS: Kirko, I. M. and Filippov, M. V.

TITLE: Characteristics of a Suspended Layer of Ferromagnetic Particles in a Magnetic Field

PERIODICAL: Zhurnal tekhnicheskoy fiziki, 1960, Vol. 30, No. 9, pp. 1081-1084

TEXT: The suspension and pseudoliquefaction of iron particles (0.1-0.248 cm) in water under the action of an alternating field was carried out with the aid of the experimental arrangement shown in Fig. 1. The particles were placed in a vertical glass tube through which the water was pressed from below. A magnetic coil was arranged around this glass tube, and a small periscope served for the visual observation. It was shown that suspension and pseudoliquefaction of the layer in a magnetic field differ from the same processes in the absence of a magnetic field. The authors thoroughly discuss the observations made, and then construct a phase diagram for the state of the suspended layer of ferromagnetic

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Characteristics of a Suspended Layer of Ferromagnetic Particles in a Magnetic Field

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particles in a magnetic field (Fig. 3). This diagram shows on the abscissa the Reynolds numbers, on the ordinate the dimensionless quantity $M_a = H^2 h_o/PD$, where h_o is the initial height of the layer, P its weight, and D the coil diameter. The following phases are shown: layer at rest, pseudopolymeric state, development into pseudoliquefaction, developed pseudoliquid layer, destruction of the layer, and escape of the particles from the glass tube with higher Reynolds numbers. This approximate diagram, in spite of its rough approximation, permits clarifying the rules governing a suspended layer of ferromagnetic particles in a magnetic field. There are 3 figures and 6 references: 4 Soviet, 1 German, and 1 US.

ASSOCIATION: Institut fiziki AN Latv. SSR (Institute of Physics of the AS Latviyskaya SSR)

SUBMITTED: March 31, 1960

Card 2/2

KIRKO, I.; REZNIKOVICH, K.; TODES, O.; FILIPPOV, M. V.

Circulation of materials being irradiated in an atomic reactor (loop). I. Circulation circle [with summary in English]. Vestis Latv ak no.6: 27-32 '61.

(Nuclear reactors) (Radioisotopes)

31624
S/197/61/000/012/002/003
B117/B108

I4,2110 (1138,1147,1164)

AUTHOR: Filippov, M. V.

TITLE: Effective magnetic permeability of a stratum of ferromagnetic particles in liquid suspension

PERIODICAL: Akademiya nauk Latviyskoy SSR. Izvestiya, no. 12 (173), 1961, 52 - 54

TEXT: The effective magnetic permeability μ_{eff} of a ferromagnetic stratum is defined by the author as the ratio of the averaged vector of the magnetic induction $\vec{B}$ to the vector of the external magnetic field strength $\vec{H}$ in the form of $\mu_{eff} = \vec{B}/\vec{H}$. The directions of $\vec{B}$ and $\vec{H}$ do not coincide in general. Such a determination of the effective magnetic permeability is not very accurate, but it has the advantage that the required quantity can be determined by direct measurement. The $\vec{B}$ component in the direction $\vec{H}$ was measured for a stratum of magnetite particles of 0.009, 0.012, 0.023 and 0.03 cm diameter, and for a stratum of Ф-1000 (F-1000) type ferrite particles of a size of 0.023 cm. The

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Effective magnetic permeability...

measurements were made in a homogeneous, longitudinal, variable (50 cps) external magnetic field (10 - 100 oersteds). The results were nearly independent of the size of the magnetite particles. The relative height $\bar{h}$ of the suspension, i. e., the ratio between the height h of the broadening of the stratum in the magnetic field (determined by the demagnetization factor of the "body" = suspension) and the initial stationary height h_o, was 1.0, 1.25, and 1.5 in all experiments. The effective magnetic permeability of the stratum was found to vary between 2.5, for the smallest fields investigated at the stationary stratum, and $\sim$2.9, at $\bar{h}$ =1.5 in the strongest field of about 100 oersteds. The effect of the magnetic permeability μ of the particles on the quantity μ_{eff} is small, since despite its great diversity for magnetite and ferrite, the corresponding change of μ_{eff} does not exceed 20%. The functions $\mu_{eff} = \mu_{eff}(H)$ show that μ_{eff} increases with increasing $\bar{h}$, though concentration of the ferromagnetic decreases. The cause for this is the formation of a pseudo-polymeric structure in the magnetic field and a decrease in the demagnetization factor of the broadened stratum. In order to clarify the

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effect of the concentration change on μ_{eff}, the function $\mu_{eff} = \mu_{eff}(H)$ was measured at different σ and a constant height of the stratum h_o. The reduction of σ during the broadening of the stratum is compensated by the orientation and pseudopolymerization of the suspension which involves a decrease in the demagnetization factor. V. G. Vitol is thanked for discussions. There are 4 figures and 3 Soviet references.

ASSOCIATION: Institut fiziki AN Latv. SSR (Institute of Physics AS Latviyskaya SSR)

SUBMITTED: October 21, 1961